REMARKS

This Application has been carefully reviewed in light of the Office Action mailed December 30, 2003. At the time of the Office Action, Claims 1-13 were pending in the Application. Claim 8 is cancelled without prejudice or disclaimer. Applicant amends Claims 1, 4, and 9 to correct various informalities and/or further clarify what Applicant considers to be the invention. Applicant submits that no new matter is added by the claim amendments. Applicant respectfully requests reconsideration and allowance of all pending claims

Objections to the Specification

The Examiner objects to the specification based on various informalities. Applicant has amended the specification to correct the informalities pointed out by the Examiner. Therefore, Applicant requests that these objections be withdrawn.

Objections to the Claims

The Examiner objects to Claims 1 and 4, indicating various informalities that require correction. Applicant has corrected these informalities in order to address the Examiner's concerns. Therefore, Applicant requests that these objections be withdrawn.

Section 112 Rejections

The Examiner rejects Claims 8 and 9 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 8 has been cancelled. Therefore, the rejections with respect to Claim 8 are considered moot. Claim 9 has been amended to further clarify what the Applicant considers to be the invention.

The Examiner objects to Claims 9 under 35 U.S.C. §112, first paragraph, stating that the specification does not describe a requirement that the components identified as corresponding to at least one of said first and second component classes cumulatively represent at least 40% of the total number of said components therein. Applicant respectfully directs the Examiner's attention to page 40, lines 9-19 of the specification which disclose that, in some embodiments, the total

percentage of components corresponding to both the first and second component classes may comprise at least 40% of the total number of components. (See also Specification, Page 40, lines 29-35, and Tables 6-10). Furthermore, the specification also states that compliance with the 40% target is advantageous, but not mandatory. (Specification, page 40, lines 34-35).

The Examiner also objects to Claims 9 under 35 U.S.C. §112, first paragraph, stating that the specification does not describe a requirement for effecting an adjustment which causes one of said components determined to correspond to said third component class to be treated as corresponding to said second component class rather than said third component class. Applicant respectfully directs the Examiner's attention to page 41, lines 1-6 of the specification which disclose that, in some embodiments, there may be a component in Class 3 which would not normally be required in each product, but which could be shifted to Class 2 by making it a requirement in each product.

The Examiner also objects to Claims 9 under 35 U.S.C. §112, second paragraph, stating that Claim 9 omits essential steps amounting to a gap between steps. Applicant respectfully submits that the amendments to Claim 9 address the Examiner's rejection under 35 U.S.C. §112, second paragraph, and place Claim 9 in condition for allowance.

Section 103 Rejections

The Examiner rejects Claims 1-6 and 10-13 under 35 U.S.C. §103(a) as being anticipated by U.S. Patent Application 2002/0035463 issued to Lynch, et al. ("*Lynch*") in view of Mori et al. (*"Mori"*) (IEEE, 1993), and in further view of Iizuka et al. ("*Iizuka*") (IEEE, 1988) and Deang ("*Deang*") (IEEE, 1998). The Examiner rejects Claim 7 under 35 U.S.C. §103(a) as being unpatenable over *Lynch* in view of *Mori, Iizuka, Deang* and in further view of U.S. Patent No. 6,647,428 issued to Bannai et al. ("*Bannai*").

In order to establish a *prima facie* case of obviousness, three requirements must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge available to one skilled in the art, to modify a reference or combine multiple references; (2) there must be a reasonable expectation of success; and (3) the prior art reference

(or combination of references) must teach or suggest all of the claim limitations.[1] In the present case, a *prima facie* case of obviousness cannot be maintained for at least two reasons. First, neither *Mori, Iizuka, Deang, Lynch,* nor *Bannai* provides a suggestion or motivation to combine the references. Second, even assuming for the sake of argument that the references did suggest or motivate a combination of the references to a person of ordinary skill in the art at the time of the invention, *Mori, Iizuka, Deang, Lynch,* and *Bannai,* whether considered alone, in combination with one another, or in combination with information generally available to those of ordinary skill in the art at the time of the invention, still fail to disclose all of the elements of the pending claims.

A.   No Motivation or Suggestion to Combine *Mori, Iizuka, Deang, Lynch,* and *Bannai*

The M.P.E.P. sets forth a strict legal standard for finding obviousness based on a combination of references. According to the M.P.E.P., "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to one of ordinary skill in the art" at the time of the invention.[2] The "fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification.[3]

The governing Federal Circuit case law makes this strict legal standard even clearer.[4] According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine . . . prior art references is an essential component of an obviousness holding."[5] "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be

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[1] *See* M.P.E.P. § 2143.
[2] M.P.E.P. § 2143.01.
[3] *Id.* (emphasis in original).
[4] Note M.P.E.P. § 2145(X)(C) ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

solved."[6] However, the "range of sources available . . . does not diminish the requirement for actual evidence."[7] In *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that proper evidence of a teaching, suggestion, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

> Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.* Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999 (quoting *W.L. Gore & Assoc., Inv. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)) (emphasis added) (citations omitted).[8]

In the present case, the Examiner is improperly using the Applicant's disclosure as a blueprint for piecing together various elements of *Mori, Iizuka, Deang, Lynch,* and *Bannai.* In fact, with respect to Claims 1-6 and 10-13, the Examiner has attempted to piece together four different references using the blueprint of the present disclosure.

Furthermore, with respect to Claim 7, the Examiner has attempted to piece together five different references using the blueprint of the present disclosure where one of those references, *Bannai,* is not within the same field of endeavor as the other cited references. *Bannai* is directed toward a communication network architecture and a packet format for transporting multiple services in connectionless packet-based networks. In contrast, *Mori, Iizuka, Deang,* and *Lynch,* are directed towards systems which aid designers in the process of complex product design. The Examiner is required to determine what is analogous prior art for the purposes of analyzing the

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[5] *In re Sang-Su Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000)).
[6] *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).
[7] *Id.*
[8] *See also In Re Jones*, 958 F.2d 347, 351 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.).

obviousness of the subject matter at issue.[9] To rely on a reference as the basis of a rejection for the applicant's invention, the reference "must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned."[10] *Bannai*, being directed toward a communication network architecture and a packet format for transporting multiple services in connectionless packet-based networks, is not within the field of the Applicant's endeavor. Furthermore, the *Bannai* invention is not reasonably pertinent to the particular problem with which Applicant is concerned. "A reference is reasonably pertinent if ... it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."[11] *Bannai*, which deals with communication network architectures, would not commend itself to the attention of an inventor considering the problem of developing a system to aid in complex product design. One skilled in the art would not be motivated to combine *Bannai* with the other cited references to achieve the elements of Claim 7 without the blueprint provided by Claim 7.

In addition, the Examiner has merely stated that at the time the present invention was made, it would have been obvious for one of ordinary skill in the art to combine the teachings of *Mori, Iizuka, Deang, Lynch,* and *Bannai*. However, even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed combination is not sufficient to establish obviousness.[12]

Consequently, a *prima facie* case of obviousness cannot be maintained with respect to Claims 1-7 and 9-13, as the Examiner has not shown the requisite proof necessary to establish a suggestion or motivation to combine the cited references. For at least this reason, Applicant respectfully requests reconsideration and allowance of Claims 1-7 and 9-13.

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[9] *See* M.P.E.P. § 2141.01(a).
[10] *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992).
[11] *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).
[12] *See In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

B.   The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claims 1-7 and 9-13

Even assuming for the sake of argument that the cited references did suggest or motivate a combination of the references to a person of ordinary skill in the art at the time of the invention, *Mori, Iizuka, Deang, Lynch,* and *Bannai,* whether considered alone, in combination with one another, or in combination with information generally available to those of ordinary skill in the art at the time of the invention, would still fail to disclose each and every element of Claims 1-7 and 9-13.

1.   The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claim 1

Claim 1, as amended, of the present invention recites:

> A method for facilitating configuration of one of a plurality of different products from a set of components which can be selectively combined in different ways to form a plurality of different component combinations that each serves as a respective said product, comprising the steps of:
>   determining whether each said component in said set corresponds to a first component class involving components that are required in each said product without variation in quantity and type;
>   determining whether each said component in said set corresponds to a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type;
>   determining whether each said component in said set corresponds to a third component class involving components that are present in some but not all of said products, the components corresponding to said second and third component classes collectively forming a component group;
>   identifying a criteria set having a plurality of different states which each correspond to a respective one of said products; and
>   associating with each said state of said criteria set a definition of a combination of the components from said component group which is present in the corresponding product.

Claim 1, in part, discloses "determining whether each said component in said set corresponds to a first component class involving components that are required in each said product without variation in quantity and type." The Examiner states that *Lynch* discloses this

element. (Office Action mailed 12/30/03, page 9, ¶12.1, citing *Lynch*; Abstract, ¶0037-0038). However, *Lynch* merely discloses that its invention allows for a system to be configured using a hierarchical model with system components expressed via an interactive interface. (*Lynch*, ¶0037). *Lynch* fails to disclose a *first component class*, let alone determining whether each component in said set corresponds to a first component class *involving components that are required in each said product without variation in quantity and type*, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of *Lynch* which discloses a first component class involving components that are required in each said product without variation in quantity and type, as recited in Claim 1.

Furthermore, Claim 1 recites, in part, "determining whether each said component in said set corresponds to a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type." The Examiner states that *Mori* discloses this element. (Office Action mailed 12/30/03, page 10, ¶12.1, citing *Mori* Page 306, Col. 2, ¶1, lines 3-5; Page 307, Col. 1, ¶5 lines 5-6). However, *Mori* merely discloses that a user is required to input the quantity of components required of a certain type for a given configuration. (*Mori*, Page 307, Col. 1, ¶5 lines 5-6). *Mori* fails to disclose a *second component class*, let alone determining whether each said component in said set corresponds to a second component class *involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type*, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of *Mori* which discloses a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type.

In addition, Claim 1 recites, in part, "determining whether each said component in said set corresponds to a third component class involving components that are present in some but not all of said products, the components corresponding to said second and third component classes collectively forming a component group." The Examiner states that *Iizuka* discloses this element. (Office Action mailed 12/30/03, page 11, ¶12.1, citing *Iizuka*, Page 442, Col. 1, ¶2). However, *Iizuka* merely discloses a system that can guide engineers in the selection of an appropriate component to be included in a configuration using interconnectability relationships between various pieces of equipment. (*Iizuka*, Page 442, Col. 1, ¶2, lines 10-13). *Iuzuka* fails to disclose

second and third component classes, let alone determining whether each said component in said set corresponds to a third component class *involving components that are present in some but not all of said products,* or that the components corresponding to said second and third component classes collectively forming a component group, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of *Iizuka* which discloses: (1) a third component class involving components that are present in some but not all of said products; or (2) that the components corresponding to said second and third component classes collectively forming a component group.

For at least these reasons, a *prima facie* case of obviousness cannot be maintained with respect to Claim 1, because the cited references fail to disclose each and every element of Claim 1. Therefore, Applicant respectfully requests reconsideration and allowance of Claim 1, as well as Claims 2-7 and 9-13, which depend from Claim 1.

2. **The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claim 2**

Claim 2 depends from, and incorporates all of the limitations of, Claim 1 which has been shown to be allowed for the reasons discussed above. Therefore, Claim 2 is allowable. Furthermore, Claim 2 is also allowable because it contains additional limitations not disclosed by the cited references. For example, Claim 2 recites, in part, "said products each have therein one of a plurality of different combinations of the components corresponding to said second component class." The Examiner states that *Mori* discloses this element. (Office Action mailed 12/30/03, page 12, ¶12.2, citing *Mori* Page 306, Col. 2, ¶1, lines 3-5; Page 307, Col. 1, ¶5 lines 5-6). However, as discussed above, *Mori* merely discloses that a user is required to input the quantity of components required of a certain type for a given configuration. (*Mori*, Page 307, Col. 1, ¶5 lines 5-6). *Mori* fails to disclose a *second component class*, let alone that said products each have therein *one of a plurality of different combinations of the components* corresponding to said second component class, as recited in Claim 2.

For at least this additional reason, a *prima facie* case of obviousness cannot be maintained with respect to Claim 2, because the cited references fail to disclose each and every element of Claim 2. Therefore, Applicant respectfully requests reconsideration and allowance of Claim 2.

3. The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claim 10

Claim 10 depends from, and incorporates all of the limitations of, Claim 1 which has been shown to be allowed for the reasons discussed above. Therefore, Claim 10 is allowable. Furthermore, Claim 10 is also allowable because it contains additional limitations not disclosed by the cited references. For example, Claim 10 recites that the method also includes, prior to the determining steps, the step of "generating for each said component respective component information which includes an identification of all types of the component and includes configuration information defining the conditions under which a particular type and quantity of that component are used in each of said products." The Examiner states that *Deang* discloses this element. (Office Action mailed 12/30/03, page 18, ¶12.7, citing *Deang,* Page 3, Col. 2, ¶2, lines 4-7 and Col. 2, ¶3). *Deang* merely discloses that each component may be represented in a database by a set of facts which specify properties that describe the components and a set of rules which specify how the facts about the components are to be used during the design process. (*Deang,* Page 3, Col. 2, ¶2, lines 4-7). In addition, *Deang* discloses that the facts regarding a component consist of the name of a component, the component value, how the component is organized in the functional hierarchy, and how the component should be connected with other components. (*Deang,* Page 3, Col. 2, ¶3). However, *Deang* fails to disclose generating configuration information that includes an identification of *all types of the component* and configuration information defining the *conditions under which a particular type and quantity of that component are used* in each of said products, as recited in Claim 10.

For at least this additional reason, a *prima facie* case of obviousness cannot be maintained with respect to Claim 10, because the cited references fail to disclose each and every element of Claim 10. Therefore, Applicant respectfully requests reconsideration and allowance of Claim 10.

4.   **The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claim 12**

Claim 12 depends from, and incorporates all of the limitations of, Claim 1 which has been shown to be allowed for the reasons discussed above.   Therefore, Claim 12 is allowable. Furthermore, Claim 12 is also allowable because it contains additional limitations not disclosed by the cited references. For example, Claim 12 recites the step of "preparing a flowchart which graphically represents a mapping between said different states of said criteria set and said definitions of combinations of the components from said component group."   The Examiner states that *Lynch* discloses this element. (Office Action mailed 12/30/03, page 19, ¶12.9, citing *Lynch,* FIGURES 6-10). Figures 6-10 of *Lynch*, pointed out by the examiner, merely illustrate the steps of the *Lynch* method. *Lynch* fails to disclose *preparing a flowchart which graphically represents a mapping between said different states of said criteria set and said definitions of combinations of the components from said component group*, as recited in Claim 12. Furthermore, the Examiner has not pointed out any portion of *Lynch* that discloses this limitation.

For at least this additional reason, a *prima facie* case of obviousness cannot be maintained with respect to Claim 12, because the cited references fail to disclose each and every element of Claim 12. Therefore, Applicant respectfully requests reconsideration and allowance of Claim 12.

5.   **The Cited References Fail to Disclose, Teach, or Suggest Each and Every Element of Claim 13**

Claim 13 depends from, and incorporates all of the limitations of, Claim 1 which has been shown to be allowed for the reasons discussed above.   Therefore, Claim 13 is allowable. Furthermore, Claim 13 is also allowable because it contains additional limitations not disclosed by the cited references. For example, Claim 13 recites "configuring one of said components which corresponds to said first component class so that it can removably receive therein a plurality of other said components." The Examiner states that *Lynch* discloses this element. (Office Action mailed 12/30/03, page 19, ¶12.10, citing *Lynch,* Abstract, Lines 1-3, ¶0035-0038). *Lynch* merely discloses that its invention can create a structural hierarchical model of a system and that the relationships between components in the system can be defined. (*Lynch,* ¶0037-

0038). However, *Lynch* fails to disclose configuring one of said components which corresponds to said first component class so that it can *removably receive therein a plurality of other said components*, as recited in Claim 13.

For at least this additional reason, a *prima facie* case of obviousness cannot be maintained with respect to Claim 13, because the cited references fail to disclose each and every element of Claim 13. Therefore, Applicant respectfully requests reconsideration and allowance of Claim 13.
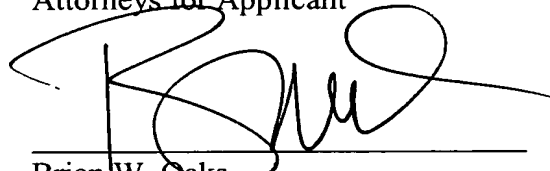
CONCLUSION

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Brian W. Oaks, Attorney for Applicants, at the Examiner's convenience at (214) 953-6986.

Although no fees are believed to be due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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